m/023/007

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

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April 5, 2001

Mr. Stephen Flechner
North Lily Mining Company
1800 Glen Arm Place
Suite 210
Denver, CO 80202

Dear Mr. Flechner:

Subject: North Lily Mining Company
Eureka, Utah Heap Leach Facility
Post Closure Fluid Management System (PCFMS) - GW Permit No. UGW23001
Construction Permit

We have completed our review of the final plans and specifications for the construction of the Post Closure Fluid Management System (PCFMS). The plans and specifications were supplied by JBR Environmental Consultants, Inc. The plans and specifications were received on March 7, 2001.

The plans and specifications, as submitted, comply with the *Utah Administrative Code , Utah Water Quality Rules*, (*UAC R317*). This onsite wastewater disposal system is a Class V underground injection well as defined in the *Underground Injection Control Program (UAC R317-7)*. A **construction permit** under *UAC R317* and an **authorization-by-rule** under *UAC R317-7*, as constituted by this letter, are issued subject to the following conditions:

1. Any revisions or modifications to the approved plans and specifications must be submitted to the Division of Water Quality (the Division) for review and approval, before construction or implementation thereof.

2. The new system must not be placed in service unless the entire land application and the new waste water treatment facilities have been completed, and the Division has made a final inspection of such, and has authorized in writing to place them into service.

3. The attached inventory form for the Underground Injection Control (UIC) program must be completed and returned to the Division. Because the drainfield is defined as a Class V Well under current EPA rules, the inventory form is mandatory.

4. The following items also apply:
   A. The existing access road shown over the drain field must not pass over the field.

B. An area must be designated to replace the drainfield should it fail to operate properly.
C. The drainfield piping must be capped on every end.
D. The piping transferring water to the southern drainfield section must not be perforated.
E. Adequate piping and installation methods for the site conditions must be used.
F. An adequate sampling port for a low-flow flow meter and totalizer will need to be provided. A flow meter and totalizer must be installed. We recommend they be secured to prevent theft and that they be placed in the lowest distribution box.

This project is for the permanent disposal of drain-down water from the reclaimed heap leach facility at this site. The project consists of construction of distribution boxes, transmission lines, sump pump system and an absorption drainfield for receiving drainage water.

An absorption drainfield system will be installed west of the existing pond systems. A transmission pipeline will convey flow from a distribution box just east of the new drainfield. Thence, a continuation of the sole transmission pipeline will receive drainage east of the distribution box from two sources. One source is a sump pump system transferring drainage into the transmission pipeline from the former pregnant liquor pond. The second source receives drainage from a buried drain line west and south of the pregnant pond. A distribution box will be installed on the buried drain and will divert flow from the box across the barren pond, to the said transmission pipeline.

The sump line is temporary until the pregnant pond is no longer needed and the site is reclaimed. Once the site is reclaimed, a final system will be installed to transfer fluids from the distribution box at the pad margin to the drainfield.

Historical drainage discharge is about 3.5 gallons per minute (gpm). The drainfield is designed to receive 6.41 gpm in accordance with *UAC* R317-5. This is to allow for higher flows due to precipitation events. The drainfield consists of 2650 feet of 4-inch diameter perforated piping. The absorption rate is based on the slowest of six test pits within the drainfield area. The percolation rate is 22.9 minutes per inch. This yields a 1.046 gallon per square foot per day absorption rate. An absorption field of 40-inches wide by 2650-feet in length yields 9,230 gallons per day, or 6.41 gpm. During high precipitation events, wastewater flow may be expected to absorb storm water.

Overburden above the drainfield will be excavated to elevation 86.0 feet, by use of a D-8 dozer. Thence excavation of the drainfield trenches will take place. The drainfield will be installed level at a set elevation. Rubber tired vehicles should not be used in overburden excavation. After installation of piping and the backfill of trenches, original grade is to be restored by the dozer. Since suspended solids in the drainage should not occur, the drainfield may operate with a longer effective life than domestic wastewater drainfields.

Long term monitoring of the solution drain-down from the heap will be necessary. Long-term monitoring must be performed according to the provisions of the current ground water discharge permit. In addition, the drain down flow must be measured and the results submitted to DWQ along with the ground water permit monitoring data. DWQ will review the data and may modify the sampling frequency. A secure sampling and flow meter port must be provided. The distribution boxes may be adjusted to be used as sampling locations.

This construction permit will expire on *April 5, 2002*, unless substantial progress is made in constructing the approved facilities, or the plans and specifications have been resubmitted and the construction permit is reissued. This permit does not relieve you in any way of your obligations to comply with other applicable local requirements or administrative actions taken by the Division of Oil, Gas and Mining (DOGM). You may contact Mr. Bruce Costa of the Central Utah Public Health Department at 435-896-5451 and DOGM for further assistance in this regard. You also remain subject to the requirements of the previously issued Notices of Violations UGW20-03 and UGW20-04 issued by this agency.

We have stamped a set of plans to bear our construction permit. A stamped set should be kept available for examination and inspections to be conducted by the Division, or for resolution of any conflicts or discrepancies that may arise during construction or installation.

Please advise us of the beginning of construction. This will enable us to schedule periodic inspections. We request that a copy of record drawings be provided after the final inspection has been conducted by the Division, and completed works have been placed in service. This will enable us to keep our information accurate.

If we can be of further assistance, please contact Mr. David Rupp of my staff.

Sincerely,

Utah Water Quality Board

Don A. Ostler, P.E.
Executive Secretary

DAO:DAR:dr/mhf

Enclosures

cc: Robert Bayer, JBR Consultants
Wayne Hedberg, DOGM
Bruce Costa, Central Utah Public Health Dept.
Roger Foisy, District Engineer

F:\:DRUPP\...\MINING\NORTH LILY MINING CO CP APRIL 2001
FILE: NO LILY MINING CO.

MAIL TO:
Department of Environmental Quality
Division of Water Quality
P.O. Box 144870
Salt Lake City, Utah 84114-4870

Well Class:_____
Inventory No.:_____
Risk Hyd._____ Chem._____
Date Entered:__/__/____ By_____

(leave this block blank)

UTAH UNDERGROUND INJECTION CONTROL PROGRAM
INVENTORY INFORMATION

General Facility And Injection Well Information

Please provide the information requested below This form is to be submitted by the owner or operator of a facility having one or more injection wells. Please type or print (ink).

1. Facility Information.

   A. Facility Name:_____ Phone No.:_____
   B. Local Address:_____
   _____
   (Number & Street, Route, City, Zip Code)
   C. Mail Address:_____
   _____
   (If Different Than Above: Number & Street, Box and/or Route, City, State, Zip Code)

   D. Facility Location* County:_____
   T._____, R._____, Sec._____, _____¼ of _____¼,
   Lat._____°_____'_____"N, Long._____°_____'_____"W
   *Note: A topographic map or detailed aerial photograph should be used to locate the facility or well.

2. Well Owner/Operator/Legal Contact Information.

   A. Owner
   1. Name:_____ Phone No.:(___)_____
   2. Mail Address_____
   _____
   (Number & Street, Box &/or Route, City, State, Zip Code)

   B. Operator (if different than Owner above)
   1. Name:_____ Phone No.:(___)_____
   2. Mail Address_____
   _____
   (Number & Street, Box &/or Route, City, State, Zip Code)

   C. Legal Contact
   Name:_____ Phone No:(___)_____
   Title:_____
   Mail Address:_____
   _____
   (Number & Street, Box and/or Route, City, State, Zip Code)
   Organization:_____

3. Type of Facility (check one)

   [ ] Private [ ] Public (State or Local) [ ] Indian [ ] Federal

   [ ] Other, please describe:_____